CHAPTER 3

LOGISTICS

As an Electronics Technician, you will definitely be involved with the supply department in getting the exact items you need to complete your tasks. To work effectively and smoothly with the supply department, you must understand how to use the supply system. This chapter should help you understand the overall operation of the system.

NAVAL SUPPLY SYSTEMS COMMAND

The Naval Supply Systems Command (NAVSUP-SYSCOM) controls the procurement of materials and services throughout the Department of the Navy. It combines into one overall system inventory managers, distribution activities, and other activities that are responsible for providing responsive and efficient material support to the operating forces of the Navy.

INVENTORY MANAGERS

Navy inventory managers have the primary responsibility for managing assigned groups or categories of items of supply. The primary function of an inventory manager is to balance parts required and parts available so that Navy fleet and shore activities receive effective and efficient support. Navy inventory managers include systems commands, project managers, bureaus, offices (including Military Sealift Command), and inventory control points (ICPs) under the command of NAVSUPSYSCOM.

INVENTORY CONTROL POINTS (ICPs)

Each ICP manages one or more types of material held at stock points in a distribution system. The ICPs position materials at stock points, maintain inventory control through an extensive stock reporting system, and provide technical assistance and cataloging services to the supply system and its customers.

STOCK POINTS

Stock points are large facilities, such as supply centers and depots, that stock parts and assemblies for shipment to requesting commands.

Supply Centers and Depots

Naval supply centers (NSCs) and depots are command organizations that furnish supply support to fleet units and shore activities. These stock points are primarily concerned with procuring, receiving, storing, issuing, and shipping material. Fleet and shore activities send requisitions to the stock points; which, in turn, ship the material and bill the unit for payment. The stock points inform the ICPs of material shipped so the ICPs can track the inventory level and determine when to buy additional material. Stock points stock Navy, Defense Logistics Agency, and General Service Administration cognizance material for issue to supported units.

Supply centers and depots perform similar functions, but at different levels. Supply centers are managed by the Naval Supply Systems Command and support supply depots and other activities that perform depot functions. Supply depots are commanded by a fleet command and normally support only local commands.

Industrial Naval Air Stations (INASs)

The INASs are primary Navy stock points for aviation material. These stock points are collocated with Naval Aviation Depots (NADEPs) and function as storage and shipment points of aviation cognizance material. The INASs report transactions of aviation material to the cognizant ICP.

MOBILE LOGISTICS SUPPORT FORCE (MLSF)

The purpose of the MLSF is to release deployed fleet units from direct dependence on shore bases for supply support. To do this, the MLSF stocks militarily essential items in high demand by deployed fleet units. The materials carried by MLSF ships are listed in the *Consolidated Afloat Requisitioning Guide Overseas (CARGO),* NAVSUPP-4998-A(Atlantic) and P-4990-P (Pacific).

GENERAL SERVICES ADMINISTRATION (GSA)

The General Services Administration controls items of material that are common to both military and civilian worlds. Examples of GSA items are paint, paper, handtools, chalkboards, movie projectors, and the like. GSA items are stocked at the naval supply centers located in Norfolk Virginia; and San Diego, California.

DEFENSE LOGISTICS AGENCY (DLA)

The Defense Logistics Agency controls items of material that are common to all the military services but not to the civilian world. Examples of DLA items are fuels and bullets. DLA items are also stocked at the Norfolk and San Diego naval supply centers.

INTEGRATED NAVY SUPPLY SYSTEM

The Navy supply system is an *integrated* system, allowing materials to be obtained usually from more than one point in the system. In the remainder of this chapter, we will discuss the Navy supply system in general, introduce the primary instructions and forms, and provide a brief description of how to use the system to get parts and supplies.

The following is a description of how the integrated Navy Supply System might react to a typical supply requisition:

1. USS Ship requisitions cognizance symbol 9N material from the NSC.

2. The NSC, a Navy retail stock point, usually ships the requested material. However, after screening its stocks, the NSC determines that the requested material is not carried. It then refers the requisition to the Defense Electronics Supply Center (DESC), Dayton, the cognizant inventory manager.

3. The DESC, Dayton, after researching its master records and determining that the material is available at NSC Oakland (a specialized support point), refers the requisition to NSC, Oakland.

4. The NSC, Oakland, issues the material to USS ship.

5. The NSC, Oakland, then makes an issue transaction report to DESC, Dayton.

6. The DESC, Dayton, after applying the issue report to its master record, learns that stock of the item at NSC, Oakland, is below the required level and issues a contract to the ABC Corporation for additional stocks of the item.

7. The ABC Corporation ships the material to NSC, Oakland.

8. The NSC, Oakland, makes a receipt transaction report to DESC, Dayton.

As you can see, if an item is not available at the local NSC, the requisition does some traveling. So it may take a little time to get the item you requested.

COORDINATED SHIPBOARD/ SHOREBASED ALLOWANCE LIST (COSAL/COSBAL)

The COSAL/COSBAL is the document that drives the operational and supply support for a ship. It is a dynamic document that changes constantly, as the ship's configuration changes. Each ship in the U.S. Navy has its own COSAL or COSBAL tailored specifically to its mission. The COSAL or COSBAL lists include the following:

- The equipment or components required for the unit to perform its operational assignments

- The repair parts and special tool required for the operation, overhaul, and repair of those equipments

- The miscellaneous portable items necessary for the care and upkeep of the unit

The COSAL/COSBAL is both a technical document and a supply document. It provides nomenclature, operating characteristics, specifications, parts list, and other technical data pertaining to all installed equipment and machinery. It also provides nomenclature and characteristics of the equipage and tools required to operate and maintain the unit and its equipment.

No one can predict exactly when a circuit card in an AN/URT-23 will fail or when a bearing will wear out in a freshwater pump. However, the COSAL/COSBAL can help maintenance and supply personnel in a unit to make an educated guess. The COSAL/COSBAL computers analyze the frequency of failures of parts used aboard units and, based on these analyses, develop an allowance of repair parts that the supply officer should stock.

The COSAL/COSBAL is used primarily for two purposes-to identify repair parts (storeroom items) and to determine operating space allowances (equipage).

SUMMARY OF EFFECTIVE ALLOWANCE PARTS/EQUIPAGE LISTS							
EQUIPMENT/COMPONENT/EQUIPAGE IDENTIFICATION NUMBERS							
017620041	030050016	051260318	061900047	070990063	130010008	140900046	151200524
017620128	030060005	051260331	070090004	070990064	131300293	140900049	151200525
017710001	030060006	057150025	070090005	070990066	131300486	140900052	151200530
017710002	030080004	057150032	070090017	070990067	131900029	140900054	151200551

1-480264002	1-870014002	1-	-470004015	2-550034012	2-820064002	2-870004013
1-480264003	1-870014005	1-	-480024003	2-560004010	2-820064004	2-870004019
1-480264006	1-870014010	1-	-510004001	2-560004015	2-820064007	2-870004025
1-620010001	1-870014018	1-	2-510004002	2-560004020	2-820064009	2-870004027

DD 0001		07-15-74	SUMMARY OF EFFECTIVE ALLOWANCE PARTS/EQUIPAGE LISTS	5
SHIP TYPE & HULL NO.		DATE		PAGE

1. EQUIPMENT/COMPONENT/EQUIPAGE IDENTICATION NUMBERS—THE APL AND AEL IDENTIFICATION NUMBERS ARE IN NUMERICAL SEQUENCE STARTING AT THE TOP OF THE PAGE AND CONTINUING TO THE BOTTOM AND FROM LEFT TO RIGHT
2. SHIP TYPE AND HULL NO — THE SPECIFIC SHIP FOR WHICH THE SUMMARY IS PUBLISHED
3. DATE—MAY BE SHOWN AS A JULIAN DATE (4196—JULY 1974) OR AS MONTH-DAY-YEAR.
4. PAGE—CONSECUTIVE PAGE NUMBER OF THE SUMMARY

Figure 3-1.—Summary of effective allowance parts/equipage lists (SOEAPL).

Description of COSAL Parts and Sections

Since the COSAL and COSBAL are similar, we will describe just the COSAL parts and sections. Certain aviation components (aviation supply offices [ASOs]) will also be included in the COSAL when specifically designated. For more information and complete instructions in the use of the COSAL, we recommend that you read the *COSAL Use and Maintenance Manual,* SPCCINST 4441.170.

Each COSAL publication is produced in three parts. Part I contains indexes. Part II contains associated APLs and AELs. Part III contains allowances and cross-reference data. The three parts are subdivided as follows:

Part I

Summary of Effective Allowance Parts/Equipage Lists (SOEAPL)

Index–Section A (Equipment Nomenclature Sequence)

Index-Sections B, C, D, and E

Part II

Section A–Allowance Parts Lists (APLs)

Section B–Circuit Symbol Data (microfiche only)

Section C–Allowance Equipage Lists (AEL)

Part III

Section A-Storeroom Items (SRI)

Stock Number Sequence List (SNSL)

Section B-Operating Space Items (OSI)

Stock Number Sequence List (SNSL)

Section CF–Maintenance Assistance Module (MAM)

Section CR–Ready Service Spares (RSS)

Section D–Alternate Number Cross-Reference to Stock Number

Section E–General Use Consumables List (GUCL)

Section F–Forms and Publications

The following paragraphs provide a brief description of the parts of the COSAL listed above:

PART I-SUMMARY.— The Summary of Effective Allowance Parts/Equipage Lists (SOEAPL) is a numerical listing of all APLs and AELs used to determine how many of each part is listed on the stock number sequence list (SNSL). Figure 3-1 is an example of a summary page, with a description of the information it contains.

COSAL INDEX — PART I (SECTION A)

EQPT/ COMP MEC	EQUIPMENT/COMPONENT/EQUIPAGE NOMENCLATURE/CHARACTERISTICS	IDENTIFICATION NO.	QUAN- TITY	COL NO.	NOTES	* ALLOW SUPT. CODE	SERVICE APPLICATION/INFORMATION
NV	AN-CRT-3	54390900	3			EEPAA	RADIO
NV	AN-PIP-1A	56403101	1			AEPCA	IC PUBLIC ADDRESS SET
V	AN-SRC-21	57112100	2			EEPAA	RADIO
V	AN-URC-32	58442100	1			EEPAA	RADIO
V	TRANSMITTER, COURSE ORDER MK42M0	49401615	2			MEPAA	FCS TRANSMITTER

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

⑨ ⑩ ⑪ ⑫

DD 0001		0015	1st digit .... Technical Bureau/Cognizance 2d & 3d digits .... Program Support Activity 4th & 5th digits ... Logistic Support Status	I	A	29
SHIP TYPE & HULL NO.		DATE	* ALLOWANCE SUPPORT CODES	PART	SECTION	PAGE

0108-303-7900

COSAL INDEX — PART I (SECTION B)

SERVICE APPLICATION/ INFORMATION	EQPT COMP MEC	EQUIPMENT/COMPONENT/EQUIPAGE NOMENCLATURE CHARACTERISTICS	IDENTIFICATION NO.	QUAN- TITY	COL NO.	NOTES	* ALLOW SUPT CODE
AN/SLQ-32 ELECTRONICS COUNTERMEASURES SYSTEM 4ANSLQ32	V	AN-70002/SLQ-32(V), AMPL, RF	52505502	2			EEPAA
	V	AN/SLQ-32(V)2, COUNTERMEASURES SET	5694D368CL	1			EEPAU
	V	AS-3316/SLQ-32(V), ANTENNA ASSY	59226865	2			EEPAA
	V	AS-3317/SLQ-32(V), ANTENNA	59226866	2			EEPAA
	V	AS-3318/SLQ-32(V), ANTENNA	59226567	2			EEPAA
	V	CP-1370/SLQ-32(V), PROCESSOR, SIGNAL DATA	62405309	2			EEPAA
	V	CP-1375/SLQ-32(V), PROCESSOR, SIGNAL DATA	62405311	1			EEPAA
AN/SPS-49 RADAR SYSTEM 2ANSP549	V	AN/SPM-23, TEST SET, RADAR	92019105	1			XEPAA
	V	AN/SPS-49(V)2 FC1 P/O R-2/SPS-49(V)	57041230FA	1			XESAC
	V	AN/SPS-49(V)2, RADAR SET	57040502CL	1			XEPAU
	V	AS-3263/SPS-49(V), ANTENNA	59226806	1			XEPAA
	V	BZ221/U, BUZZER	57040416	2			XEPAA
	V	CN-1446/SPS-49(V), REGULATOR ASSEMBLY, VOLT	62364417	1			XEPAA

⑧ ① ② ③ ④ ⑥ ⑦ ⑤

⑨ ⑩ ⑪ ⑫

FFG 10		07-15-85	1st digit .... Technical Bureau Cognizance 2d & 3d digits .... Program Support Activity 4th & 5th digits .. Logistic Support Status	1	B	E	1
SHIP TYPE & HULL NO		DATE	* ALLOWANCE SUPPORT CODES	PART	SECTION	PAGE

0108-3C3-8000

Figure 3-2.—COSAL indexes.

Table 3-1.—Description of Contents of Columns of COSAL Index

1. Equipment/Component Military Essentiality Code	Indicates those items of equipment that are essential to the ship's mission. V - Vital. Failure of the equipment could reduce the ship's capability to perform its mission. NV - Nonvital. Failure of the equipment would not adversely affect the ship's mission.
2. Equipment/Component/Equipage Nomenclature/Characteristics	The noun name and partial characteristic description of each APL and AEL.
3. Identification Number	The APL or AEL identification number.
4. Quantity	The quantity of each equipment/component per service aboard ship, covered by the applicable APL. Column 4 will be blank for all AELs.
5. Column Number	The applicable AEL column number from which the allowance is determined. This column is blank for all APLs.
6. Notes	A code that indicates specific information about an APL/AEL entry. These codes are listed and defined in the Introduction.
7. Allowance Support Code	Reserved for future use. (See item 11.)
8. Service Application/Information	The service or major shipboard function in which the equipment/component/equipage operates or performs a service.
9. Ship Type and Hull Number	The specific ship for which the COSAL is prepared.
10. Date	Date of preparation (may be expressed as Julian or month-day-year date).
11. Allowance Support Codes	Pertains to item 7.
12. Page	Consecutive page numbering from first page to last. Page numbers preceded by "H" apply to Hull, Mechanical and Electrical (Example H-1). Page numbers preceded by "Z" apply to Ordnance(Example Z-1).

*Refer to Figure 3-2.

PART I-COSAL INDEX.- The Index identifies the APLs and AELs associated with the ship's equipment. It also provides other information, such as the code of the work center responsible for the maintenance and various maintenance-related codes. The index is published in five parts, sections A through E. Sections A and B provide a cross-index of all APL/AELs listed in Part II. They contain the same information, but in two slightly different formats. Figure 3-2 shows both the A and B indexes. All areas of information are in the same relative positions, except

that column 8 in Section A listings shifts over to become column 1 in section B listings.

The bulk of the information you will need to repair an item covered by COSAL is contained on the appropriate APL or AEL. To identify the appropriate APL or AEL, you will need to look up either the name of the equipment in Section A or the use of that equipment infection B.

Table 3-1 describes the uses of the Index columns and is keyed to the numbers shown in figure 3-2.

NAVSANDA FORM 1210 (2-PT) (1-64)

ALLOWANCE PARTS LIST (APL)

EQUIPAGE NOMENCLATURE/CHARACTERISTICS

TECHNICAL DOCUMENT NUMBER — MANUAL 334-2163 — ②
PLAN

C-3868-SRC — ①

IDENTIFICATION NO ③ — 430190918
DATE ④ — 07-15-7-
PAGE ⑤ — 1

CHARACTERISTICS

SAMPLE ONLY

MFR ACE ELECTRONICS CO.
NAVCOM PLAN-
MFR DWG-2300-157
MFR ID-GR
PATTERN NO-130
EQUIP SPEC-MIL-M-280 — ⑥
FSN-
LAPL-43-016
TYPE-II
CLASS-2
SIZE-
DRIVE-MOTOR
MFR MOTOR IDENT-
VOLTS-115
FREQUENCY-AC
PHASE-SINGLE
AMPS-5.3
HP-.333
0742

⑦

A4742-3
4902.5
4908-3
5002-3

⑧

61482 BEARING ASSY-KN
61482 BELT-V OTS CRCM
61482 WHEEL-ABRSV
61482 BELT-V OTS CRCM

ADDITIONAL MANUAL NO/S
334-0000

STARTER-MTR
MOTOR-AC

⑪

151403699
173330037

⑩ ⑬

9Z 3110-00-225-6093 1PA 2Z Z   1 EA
9C 3030-00-528-4256 1PA 2Z Z 2   1 EA
9G 7320-00-297-0852 3PA 2Z   1 EA
9C 3030-00-528-4254 1PA 2Z Z 2   1 EA

⑮ ⑰ ⑱

8 1
8 1

ON BOARD ALLOWANCE TABLE

COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8

⑲ ㉑

SEE SNSL FOR ALLOW

⑳

⑫ ⑨

⑭ ⑯

㉒ ㉓

㉔ ㉕ ㉖

REFERENCE NO/DESCRIPTIVE DATA | ITEM NAME | STOCK NO.

DD 0001 | 1255 | ALLOWANCE EQUIPAGE LIST (AEL)

1	2	3	4	5	6	7	8

430190918 | 07-15-7- | 1

SHIP TYPE & HULL NO. | PAGE

IDENTIFICATION NO. | DATE | PAGE

Figure 3-3.–Allowance parts list (APL).

Table 3-2.—Data Elements of the APL

1. Equipment/Component Nomenclature/ Characteristics	Name of equipment or component and brief description. This corresponds to the index entries.
2. Technical Document Number	The predominant technical manual or plan number. Additional numbers shown in item 8.
3. Identification Number	Identifying number assigned to a particular item or component of equipment. This number is shown at top and bottom of page.
4. Date	COSAL publication date.
5. Page	Consecutive numbering of all pages required to describe one equipment/component which is identified by a single APL number. This is shown at both top and bottom of page. APLs have the word "END" printed in the center of the page immediately following the last line of data for that APL. This enables you to ensure that you have a complete APL.
6. Characteristics	Complete nameplate data on the equipment/component named in item 1.
7. Reference/Symbol Number	A number, other than an NSN, by which a part may be identified, arranged in alpha/numeric sequence. It may be a manufacturer's part, drawing, piece, or circuit symbol number.
8. Additional Data Area	When additional technical manuals or plans are applicable, they are listed in this area under an appropriate caption. These are in addition to those listed in items 2 and 6.
9. Item Name	The name listing of repair parts and/or related accessory components for the equipment/component covered by the APL.
10. Stock Number	The NSN assigned to a specific repair part. When an NSN has not been assigned, the reference number from item 7 is repeated.
11. Accessory Components	Accessory components applicable to a "Parent Equipment" are listed on the "Parent APL." Any additional accessory components not listed on the APL should be reported to SPCC.
12. Federal Supply Code for Manufacturers (FSCM)	Indicates a coded number of a manufacturer.
13. Part Military Essentiality Code (Part MEC)	There are two codes. They are shown on the APL and the SNSL. 1 - Failure of the part would have a major effect on the dependence/operation of the component. 3 - Failure of the part would have little effect on the dependence/operation of the component.
14. Source Code	Indicates the availability of repair parts and method of procurement. These codes are defined in the Introduction.
15. Maintenance Code	A three digit code signifying the maintenance activity authorized to replace, repair, and condemn an item. Only first digit now used. These codes are defined in the Introduction.
16. Recoverability Condemnation Code	Indicates the recoverability characteristics of items removed during maintenance. R - Repairable S - Salvageable C - Consumable
17. Notes Code	Provides necessary and important information about individual items listed on the APL. The Introduction lists and defines these codes.
18. Quantity in One Equipment/Component	The total population of the part within the equipment/component described by the APL.
19. Unit of Issue	The term connotes the physical measurement or count of quantities of an item for procurement, storage, and issue.
20. Allowance Item Code	Refer to Part III to determine applicable allowances.
21. On-Board Allowance Table	APLs published as part of an allowance list for shipboard use and contained in Part II of the COSAL will not have quantities printed in the onboard allowance table columns. Instead, "SEE SNSL FOR ALLOW" will be printed. APLs which are received after the regular COSAL will have quantities shown so you can update your SNSL and stock record cards.
22. Ship Type and Hull Number	The specific ship/activity for which the APL is published.
23. Page	Consecutive page numbering from first page to last of all APL pages published as Part II.
24. Identification Number	Same as item 3 above.
25. Date	Same as item 4 above.
26. Page	Same as item 5 above.

*Refer to Figure 3-3.

PART II, SECTION A-ALLOWANCE PARTS LIST (APL).– An APL (fig. 3-3) is a technical document that lists the repair parts authorized to be kept on board a ship for a particular piece of equipment. Separate APLs are prepared for each different piece of equipment on board a ship and for each major component of the equipment. APLs are listed in numerical sequence by identification number in Part II of the COSAL. The parts data contained in each APL is arranged in alphanumeric order by part reference or symbol number. This part number is a number, other than a stock number, by which the part may be identified. Examples of such a number are a manufacturer's number, a service part number, and a drawing or circuit symbol number. In table 3-2, the

REFERENCE DESIGNATOR		NOTES	NIIN/ACM/FSCM-REF	SMR	APPL	ADDM	REFERENCE DESIGNATOR	NOTES	NIIN/ACM/FSCM-REF	SMR	APPL	ADDM
28	F-		1	2849494	PA2ZZ	1	NOTE					
28	J-		1	8064588	PA2ZZ	1						
28	J-		2	7210490	PA2ZZ	1	X-REF: THE ABBREVIATION X-REF APPEARING IN THIS APL					
28	J-		3	8363345	PA2ZZ	1	UNDER THE COLUMN HEADED SM&R IS INTENDED TO PROVIDE					
28	MP-		2	5430789	PB2ZZ	1	A CROSS REFERENCE FROM THE REFERENCE DESIGNATOR AT					
28	M-		1	5389246	PB2ZZ	1	THIS POINT TO AN ASSEMBLY BREAKDOWN LOCATED ELSEWHERE					
28	R-		1	1952343	PA2ZZ	1	IN THE APL. THIS METHOD HAS BEEN EMPLOYED WHEN REDUNDANT					
28	R-		2	5227029	PA2ZZ	1	USAGE OF AN ASSEMBLY PART NUMBER IN THE EQUIPMENT WOULD					
28	S-		1	7753180	PA2ZZ	1	REQUIRE AN ASSEMBLY BREAKDOWN FOR EACH APPEARANCE.					
28	T-		1	8501437	PA2ZZ	1	THE ASSEMBLY BREAKDOWN APPEARS ONE TIME ONLY, IN SEQUENCE,					
28	CP-		1	259678-00	XB2ZZ	1	FURTHER IN THE APL UNDER THE PART NUMBER INDICATED.					
28	MP-		1	5430789	PB2ZZ	1						
28	MP-		3	5560145	PB2ZZ	1						
28	XF-		1	8504986	PB2ZZ	1						
28	XF-		2	8446511	PB2ZZ	1						
28W	1			259672-00	XB2ZZ	1						
28W	1	P-	1	2588051	PA2ZZ	1						
28W	1	P-	2	1492901	PA2ZZ	1						
28W	1	CP-	1	2592019	PA2ZZ	1						
28W	1	CP-	2	5836952	PA2ZZ	1						
28W	2			259669-00	XB2ZZ	1						
28W	2	CP-	2	1 2801936	PA2ZZ	1						
28W	2	P-	1	MS31068B18-1 S	XB2ZZ	1						
28W	2	P-	2	6422653	PA2ZZ	1						
28W	2	CP-	1	1 2801936	PA2ZZ	1						
				END								

	NOMENCLATURE	IDENTIFICATION NO.	DATE	PAGE
	TS-1538/USQ-20(V) SYLVANIA, TESTER, CONVERTER	92105825	03-14-74	1

Figure 3-4.—Allowance parts list (APL), Section B.

different data elements are numbered and refer to the numbers in figure 3-3.

PART II, SECTION B–CIRCUIT SYMBOL DATA.– Section B (fig. 3-4) is furnished as microfiche with the COSAL. It contains those CSNs that appear in the technical manual for the equipment and is arranged in circuit symbol number (CSN) sequence. The CSNs are cross referenced to the NIIN/PNICN/TNICN part number that appears in Section A. Table 3-3 identifies the data elements of the APL (Part II, Section B) and refers to the numbers in figure 3-4.

PART II, SECTION C–ALLOWANCE EQUIPAGE LIST (AEL).– The AEL is a technical and supply document prepared for various categories of equipage associated with mechanical, electrical, electronic, and ordnance systems. When an AEL is written for a system, it identifies the items required to operate the system and the repair parts required to maintain it. The AEL lists specific information for each item, such as name, NSN, unit of issue, quantity needed, and quantity allowed on board. AELs are filed in numerical sequence by AEL identification number. As a technician, you should be aware of where all pertinent AELs can be found.

PART III, SECTIONS A, B, CF, AND CR-STOCK NUMBER SEQUENCE LISTS (SNSL).– The SNSL is a product of today's data processing capability and is a great time-saver in controlling parts and other items. Consider the amount of work that would be necessary to determine how many of what items to order by just using the APL and AELs.

The SNSL has four listings of all NSNs that apply to your unit. They are Section A, Storeroom Items (SRIs); Section B, Operating Space Items (OSIs); and Section CF, Maintenance Assistance Module (MAM); and Section CR, Ready Service Spares (RSS). These

Table 3-3.—Data Elements of the APL, Section B

(1) Unit. The Unit Number assigned by the manufacturer. (Part of the CSN).

(2) CSN — Circuit Symbol Number which is obtained from the equipment technical manual or drawings. (Also known as the Reference Symbol Number.) When APLs are in Part Number sequence, the Part Number will appear in this space.

(3) Notes — For Codes and Definitions see Appendix (C).

(4) FSCM-REF#/ ACN/NIIN — The FSCM and reference number, ACN or NIIN which applies to this CSN.

(5) SMR — Source and Maintenance Recoverability Code which applies to this application. (see Appendix C for definition).

(6) APPL — Number of applications with the same CSN.

(7) ADD — An addendum indicator showing how this item was affected by cumulative addenda issued by SPCC. for this APL, (i.e., A = Added, D = Deleted, C = Changed, F = NIIN update, * = this item is appearing for the first time in this addendum. When the APL is revised, no addendum indicators appear.

(8) Nomenclature. The equipment for which the APL is prepared.

(9) APL Number. The equipment/component identification number.

HOW TO USE SECTION B

Determine the NIIN (FIIN) ACN or Part Number from Section B, referring to the Reference Symbol Number on Part II, Section A or C (which ever is applicable). The Reference Symbol Number is crossed to the stock number column which will reflect the latest NSN or ACN. Refer to the applicable section of the COSAL Part III to determine if the item is allowed.

* Refer to Figure 3-4.

sections contain information such as stock number, item name, identification of the equipment in or on which the item is intended for use, and specific supply management information.

PART III, SECTION E-GENERAL USE CONSUMABLES LIST (GUCL).— The GUCL identifies consumables used for general purposes in the routine maintenance and administration of the ship. The items listed in the GUCL are in addition to materials listed in other parts of the ship's COSAL. The GUCL is published by the Fleet Material Support Office (FMSO), but only for new construction, major conversion, or

reactivated units. Normally, it will not be published with or for COSALs resulting from ship overhaul or maintenance actions.

The GUCL contains basic information, such as nomenclature, NSN, unit of issue, weight, and price for both hazardous and nonhazardous materials kept or used in operating spaces and store rooms.

PART III, SECTION F-FORMS AND PUBLI-CATIONS.— Section F identifies the various forms and publications the ship needs to conduct normal business and provides information on how to obtain them.

How to Use the COSAL

Once you become familiar with the indexes, you will find the COSAL easy to use. The best way to gain this familiarity is by studying the COSAL for your command. Read the entries in both the Part I, Section A and B indexes, then see how they provide across-index by using the same entries but in a different sequence. As you study the entries, refer to the introduction for the meanings of abbreviations that you do not understand.

Chapter 4 of the *COSAL Use and Maintenance Manual* provides instructions for using the COSAL. After you have become familiar with the terminology (chapters 1 through 3), refer to chapter 4 for further instructions and sample problems.

To be of maximum use to you, the COSAL must be kept up-to-date at all times. Anytime you use the COSAL, check to be sure it is up-to-date. In the following paragraphs we will discuss the use of the COSAL according to SPCCINST 4441.170, the *COSAL Use and Maintenance Manual.*

METHODS OF ENTRY.- You may enter the COSAL by any of the following methods:

- By the name of the equipment/component or equipage–use Part I, Section A of the Index

- By the shipboard service application, location, or end use of the equipment/component or equipage–use Part I, Section B of the Index

- By the circuit symbol number (CSN) of the part-use Part II, Section B (microfiche only) to cross-reference the CSN to the NINN/PNICN/ TNICN/FSCM/REF. NO. Then use Part II, Section A, to cross-reference the above number to the NSN/PNICN/TNICN

- By the NIIN/part number-use Part III, Section A or B

- By an alternate part number–use Part III, Section D to cross reference alternate numbers to NIIN/PNICN/TNICNs

ORDERING PARTS, TOOLS, AND SUPPLIES

There are numerous supply publications that you should be familiar with to use the supply system to its full capability when you requisition parts and tools. These publications are discussed in *Military Requirements for Petty Officer Third Class,* NAVEDTRA 12044.

Although the supply department is responsible for supplies, you, the technician, need to know how to identify what is needed, how to write out the request, and how to report on the use of the supplies. The publications containing the stock numbers are kept in the supply department; therefore, to perform your assigned duties, you *must* cooperate with supply personnel.

SUPPLY REQUISITION FORMS

Documenting material usage and cost data on maintenance transactions requires a joint effort of the ship's supply and maintenance personnel. NAVSUP Form 1250 and DD Form 1348 (discussed in *Military Requirements for Petty Officer Third Class* and OPNAVINST 4790.4) are the primary supply documents used by maintenance personnel. They are used to requisition parts and materials and to record material usage and cost data in support of maintenance actions. Normally, maintenance personnel are responsible for filling out and forwarding the supply forms for materials that they need to do their jobs. However, supply personnel will provide assistance whenever difficult or unusual documentation problems arise.

Some ships have automated supply systems; others have manual supply systems.

On a nonautomated ship, when a repair part is needed before a specific maintenance action can be completed, maintenance personnel use NAVSUP Form 1250 to request the issue of the part from the ship's supply department. Supply personnel issue the part if it is in stock aboard ship. If the part is not in stock supply uses the information on the form to order the part from an off-ship source. Nonautomated ships also use the NAVSUP Form 1250 to request chargeable services.

On an automated ship, when a repair part is required to complete a specific maintenance action, maintenance personnel use DD Form 1348. Chargeable services are also requisitioned on the DD Form 1348.

All submarine forces, automated and non-automated, use NAVSUP Form 1250-1 as a consumption document. Nonautomated ships of the submarine force use it as a Military Standard

Figure 3-5.—Information supplied by the division representative on NAVSUP Form 1250 or 1250-1.

Requisitioning and Issue Procedures (MILSTRIP) requisitioning document for procuring material or services from a submarine tender, submarine base, a combat store ship (AFS), a naval supply center, or the Naval Publications and Forms Center (NPFC) Philadelphia. Submarine tenders and bases use the NAVSUP Form 1250 as an invoice for material supplied to supported units of the submarine forces.

NAVSUP Forms 1250 and 1250-1 were developed to meet two needs: (1) to improve inventory control procedures, and (2) to report consumption under the Maintenance Data System (MDS). Be sure to follow the general instructions given below whenever you prepare a NAVSUP Form 1250 or 1250-1:

1. Use a ball-point pen or typewriter.

2. Annotate each entry in the proper data block.

3. To avoid confusion between the numeral 0 and the letter O, use the communication symbol for zeros, which is 0 with a slash through it from upper right to lower left.

Because of the changing nature of the various forms mentioned in the text that follows, we have not attempted to define the proper procedures for falling them out.

A division supply petty officer determines the material a division requires, then prepares the NAVSUP Form 1250/1250-1. Figure 3-5 shows the NAVSUP 1250/1250-1 with the data that must be provided by the

Figure 3-6.–DD Form 1348; Upper-manual. Lower-mechanical.

REQUISITION AND INVOICE/SHIPPING DOCUMENT

15 OCT 1985   R52192-5288-

R52192 USS JOHN PAUL JONES (DDG-32)   30 OCT 1985   13

M00244 NSC SAN DIEGO, CA

L. GARNER, LT, SC, USN

SUPPLY OFFICER
USS JOHN PAUL JONES (DDG-32)
PIER 2, NAVSTA, SAN DIEGO, CA

FUND CODE NU

ITEM NO.	STOCK NO.	NATIONAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED					

SERVICES AND MATERIALS FOR REPAIR OF:

3001   MARCHANT CALCULATORS,
       Ser. Nos. 441067, 441255   JOB   1

3002   FRIDEN ADDING MACHINE,
       Ser. No. 56432   JOB   1

3003   IBM ELECTRIC TYPEWRITERS,
       Ser. Nos. 14-667421, 15-667441   JOB   1

3004   REMINGTON ELECTRIC TYPEWRITER,
       Ser. No. 14-336601   JOB   1

TOTAL

DD FORM 1149   REPLACES EDITION OF 1 MAY 66 WHICH MAY BE USED

ORIGINAL

Figure 3-7.–Requisition and Invoice/Shipping Document, DD Form 1149.

division representative at the time the request is submitted for an equipment-related repair part.

MILITARY STANDARD REQUISITIONING AND ISSUE PROCEDURES (MILSTRIP)

The DD Form 1348 (fig. 3-6), DOD Single Line Item Requisition System Document, designed to meet MILSTRIP requirements, is discussed in *Military Requirements for Petty Officer Third Class,* NAVEDTRA 12044. You will be using DD Form 1348s and your ready reference list of codes (NAVSUP Publication 409) as you order the items you need.

Here are a few reminders as you use the forms: Prepare the DD Form 1348 by typewriter or ballpoint pen. Do not use pencil because pencil marks can cause errors when the requisition is processed through mark-sensing equipment at shore activities. In preparing requisitions, you do not need to space the entries within the tic marks printed on the forms, but you *must* make the entries within the proper data blocks. Remember to use the communication symbol to indicate zero on MILSTRIP requisitions.

The DD Form 1348 requires the same information as the NAVSUP Form 1250 but in a different order.

Most material requirements are requisitioned on DD Form 1348. However, certain items are excluded from MILSTRIP and are ordered on DD Form 1149 (figure 3-7, included here for your review) unless otherwise indicated.

SERVMART

A SERVMART is a self-service store operated by a shore supply activity and is stocked with items frequently required by most departments. Most SERVMARTs prepare a shopping guide that lists the items carried in the SERVMART. Also, most SERVMARTs provide a shopping list on which you can write the names of items you want.

The use of standard forms such as a DD 1149 may be required at certain supply activities, while at others no listing of items is required.

If a DD form 1348 is required, make up your shopping list; then prepare the DD Form 1348. The money value limit for the shopping list and the authorized signature are entered in the "Remarks" portion of the requisition. The money limit shown is equal to the total amount of the supporting shopping list, plus an additional 10 percent to allow for price

SERVMART SHOPPING LIST (4400) NAVSUP FORM 1314 (REV. 10-80)		MATERIAL CATEGORY CONSUMABLES		PAGE 1	OF 1	JULIAN DATE 2181
SHIP/ACTIVITY USS JOHN PAUL JONES (DDG-32)		REQUISITION NO. R52192-4271-3369				FUND CODE NC

ITEM NO.	COG SYM AND NSN OR NIIN ***	DESCRIPTION	U/I	QTY	UNIT PRICE	EXTENSION	REQUIRING DEPT.
1	00-222-3525	BOOK, RECORD	EA	6	1 50	9 00	OEOI
2	00-281-3685	PAPER, CARBON, 8 x 11	BX	2	2 00	4 00	OEOI
3	00-290-0598	PAPER, BOND, 8 x 13	RM	1	1 97	1 97	OEOI
4	00-370-0606	ERASER	EA	5	05	25	OEOI
5							
6							
7							
8							

SEND TO
N00244 NSC SAN DIEGO SERVMART   REQUISITION IS FROM   R52192 USS JOHN PAUL JONES (DDG-32)

AOA

R 52192   2181   3369   A   REMARKS   TOTAL COST LIMITATION $16.75

NC   LT I. L. GARNER, SC, USN

| 9 | | | | | | | |
| 0 | | | | | | | |

TYPE COMMANDER OPTION

CERTIFICATION
I CERTIFY THAT THE PURCHASE OF MATERIALS LISTED HEREON IS NECESSARY FOR THE OFFICIAL BUSINESS OF THE U.S. NAVY. REQUEST APPROVED BY:
TYPED NAME AND SIGNATURE _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ (Rank and Title)

NAME (Signature and Rate or Rank of Authorized Shopper)	TOTAL	15.22
	PLUS 10% FOR PRICE VARIATIONS	
	GRAND TOTAL (May not exceed dollar limit on DD Form 1348)	

Figure 3-8.–SERVMART shopping list and covering DD Form 1348.

variations. Figure 3-8 shows a sample shopping list and an MVO (money-value-only) requisition.

At some SERVMARTs "credit cards" are used. These cards are issued to activities frequently using the SERVMART and satisfy the same requirement as the DD Form 1348, thereby eliminating the need for this MVO requisition.

MASTER REPAIRABLE ITEM LIST (MRIL)

The MRIL is a consolidation of many individual repair lists that have been developed to make it easier to identify and return mandatory turn-in items. The MRIL is published every month. The MRIL shown in figure 3-9 is divided into two basic parts.

- Part 1—Listing of Items

- Part 2—Shipping Addresses

Materials assigned cognizance codes E, R, and V are not included in the MRIL. Repairable items in these cognizance codes are listed in the Master Repair List of Navy Aeronautical Materials.

MANDATORY TURN-IN ITEMS

You should already be familiar with the basic description of the mandatory turn-in repairable program from completing *Military Requirements for Petty Officer Third Class,* NAVEDTRA 12044. The knowledge you have should enable you to answer the following questions concerning the turn-in system:

LSI	SRC	COG	MCC	NIIN/NICN/MODEL	SMIC	RMC	RC	SEC	SHPG CODE	MPD	NOTES
		7H	H	6675-00-714-3642		D	D	U	N00189 N00228	13	USE CONTAINER 00-789-2993
		1H	D	6625-00-714-3876		O	G	U	WW		
		7Z	H	6625-00-714-3992	TE	O	D	U	N00189 N68276	06	BLUESTRIPE
		7G	H	6625-00-714-4223		F	D	U	N00189 N68276	06	BLUESTRIPE
		1R	D	1650-00-714-4365	EU	G	G	U	WW		
		2R	M	1650-00-714-4475	LC	G	D	U	N00146	13	RMN IN PLACE

PART I—LISTING OF ITEMS

SHIPPING CODE	SHIPPING INSTRUCTIONS	UIC/FSCM
N00189	IRAM NAVAL SUPPLY CENTER NORFOLK, VA 23511 ATTENTION OF BLDG SP-237	

PART 2—SHIPPING ADDRESS

Figure 3-9.–The format of the master repairable item list (MIUL), Parts 1 and 2.

- Why should the item(s) be turned in?

- Is there special material content?

- Is there hazardous material content?

- Is the item a depot level repairable?

Mandatory turn-in repairable can be identified by the material control codes H, E, X, G, or O located in the third position of the item's NSN.

For the program to work as intended, you must return repairable items promptly and in repairable condition. At the time you present your request for a mandatory turn-in item, supply must inform you that the removed part must be returned. Therefore, when you receive the replacement you are required to do the following:

- Remove the defective item without damaging it beyond its already defective condition.

- Provide adequate protection to the item so it will not be further damaged before it is turned in to supply. The most effective way, if at all possible, is to place the defective part in the same container in which you received the replacement part.

- Resist the temptation to cannibalize the item for components that you might possibly use sometime in the future.

- Return the defective item to supply as soon as practical.

Sometimes the needed replacement item is not in the storeroom; supply must obtain it. Normally, you should still turn in the failed item, even though you have not received the replacement item. This way the failed item can enter the repair cycle and be available for reissue soon.

NOTE: The exception to this requirement is when equipment can still be used under limited operation with the failed part in place until the replacement is received. If this is the case, you MUST obtain a "Remain in Place" certification.

You can find information about the packaging for protection in the technical manual of the equipment involved. You can also obtain additional information from the supply department at your command. They may suggest that you not package the turn-in item because of any inspections required before shipment or they may say their shipping personnel have the necessary materials to package the item properly. There are two references that you should know about if supply department personnel are not readily available to assist you. They are the *Afloat Supply Procedures,* NAVSUP Publication 485; and *Supply Ashore,* NAVSUP Publication 1.

3-15

You will be responsible for learning as much as possible about the supply system by using the training aids available. Most of the ETs in the fleet don't fully understand the supply system and how it works. Most obtain the desired part by any method handy at the time. You MUST become familiar with the system to receive the best results!

FEDERAL CLASSIFICATION SYSTEM

The Federal Classification System requires that only one identification number be assigned for each item of material. The Federal Classification System includes naming, describing, classifying, and numbering all items carried under centralized inventory control, as well as the publication of catalogs and related identification data. The system is managed by the Defense Logistics Agency (DLA).

MATERIAL CLASSIFICATION

The Defense Supply System contains over 4 million different items. The Navy uses and has interest in over 1.5 million of these items. The Federal Supply Classification (FSC) system is a tool to permit the classification of all items of supply used by the federal government. It provides a common language so one service or agency can use available materials held by another.

The FSC is a commodity classification. Groups and classes have been established for the numerous commodities with emphasis on the items in the supply systems of the military departments.

Examples of commodity groups and class are as follows:

58–Communications Equipment (group)

5815–Teletype and Facsimile equipment (class)

5831–Intercoms and Public Address Equipment, Airborne

59–Electrical and Electronic Equipment Components

5905–Resistors

5910–Capacitors

5920–Fuses and Lightning Arresters

61–Electric Wire, Power, and Distribution Equipment

6110–Electrical Control Equipment

6135–Batteries, Primary

In the FSC system, most material used by the Navy is assigned a national stock number (NSN). The national stock number is a 13-digit number that includes a four-digit FSC number and a nine-digit National Item Identification Number (NIIN). For example, in the NSN 6135-00-385-7281, the FSC number is 6135 and the NIIN is 00-385-7281.

The following NSN, 5920-00-248-5708, preceded by a cognizance material control code, and followed by a special material identification code (SMIC), shows all the elements with which you should be familiar:

N9 H 5920 00 248-5708-VN

Cognizance Symbol (stores account)	N9
Material Control Code	H
Federal Supply Group	59
Federal Supply Classification	20
National Codification Bureau (NCB) Code	00
National Item Identification Number (NIIN)	00-248-5708
Special Material Identification Code (SMIC)	VN

Separated, this NSN, cognizance material control code, and SMIC will tell you the following information about the item:

9N = Navy-owned stocks of defense electronic material

H = depot level repairable

59 = electrical and electronic equipment components

20 = fuses and lightning arresters

00 = FSNS assigned before 31 March 1975

00-284-5708 = the individual item identification number (NIIN)

VN = electrostatic discharge sensitive material

SEARCHING FOR THE ELUSIVE NSN

Various publications are available to help you find the stock numbers of the parts you want. Afloat, there are four basic publications.

Figure 3-10.–Sample format of an afloat shopping guide (ASG).

1. *Coordinated Shipboard Allowance List* (COSAL)

2. *Afloat Shopping Guide* (ASG)

3. *Management List-Navy* (ML-N)

4. *Navy Consolidated Master Cross-Reference List* (C-MCRL)

Also, many catalogs are published to help you translate your needs to stock numbers. (We will discuss some of these catalogs later in this chapter.) In many cases, the problems of identifying the stock number of an item are much more difficult than those normally encountered by civilian businesses. This complexity has led to the publication of more and more catalogs. As of this writing, a complete set of Navy and federal supply catalogs would occupy some 76 feet of shelf space. Maintaining all these catalogs aboard ship would be difficult, if not impossible. The four basic publications contain enough information to help you identify most of the items you will require.

Afloat Shopping Guide (ASG)

The ASG (NAVSUP P-4400), (explained in *Military Requirements for Petty Officer Third Class),* is designed to help fleet personnel in identifying the NSN items that are most fiequently requested by ships. The ASG is published every 4 years and updated annually; however, you should still use the ML-N for verification of current stock numbers, unit of issue, unit prices, and the like. The format of the ASG is shown in figure 3-10 for review purposes.

General Services Administration (GSA) Catalog

The GSA catalogs nonmilitary items in general use by both military and civil agencies of the United States. The GSA Catalog provides a handy reference in identifying consumable-type material and is similar to the ASG. The material in the GSA Catalog is listed in the ML-N as cognizance symbol 9Q and is carried in stock at stock points under Navy ownership for issue.

Figure 3-11.–Management List-Navy (ML-N).

ACT	NSN	SOS	AAC	QUP	UI	UNIT PRICE	SLC	SEC	MCC	MCD NAVY CC	MCD NAVY SMIC	MCD NAVY RRC	MCD NAVY SMCC	PMI	ADPP	DML	ITEM NAME	PC	PHRASE STATEMENT OR UNIT ISSUE/CONV FACTOR
	5960-00-714-3922	S9G	D	O	PG	.81	O	U		9G						A	JUMPER TERMINAL STR	K	U/I CONTAINS 25EA
	6625-00-714-3992	N35	V	1	EA	1440.00*	O	U	H	7Z*	TE	BL		A*	O*	A	OSCILLOSCOPE	**	
																		R*	REFER TO NET PRICE 979.00
	5310-00-714-4063	S91	D	M	EA	.03	O	U		9Z						A	WASHER, FLAT		
	5310-00-714-4082	S91	D	M	EA	.15	O	U		9Z						A	WASHER, FLAT		
	5815-00-714-4123					2.16*										A	SPRING, HELICAL, COMP	2	DISCNT USE 5815-00-714-1423

J17 REF NO	FSCM	NSN	ISC	RNVC	RNCC	SADC	DA	ITEM NAME
CBTV545A	80009	6625-00-714-3992*	3	2	5			OSCILLOSCOPE
		6625-00-225-0248						
CBTYPE102	77075	8030-00-734-9314	5	2	3		N	COMPOUND, CALKIN
CBTZ2200D	23040	2530-00-062-0345*	2	2	5			CUP, HYDRAULIC B
		2530-00-278-2287						
CBTZ6256A	23040	3020-00-499-9631	C	2	3		N	SPROCKET, DRIVE
CBT12	85597	3460-00-586-6650	5	2	3			CHIP BREAKER
CBT13-023	80103	5910-00-500-9119	3	2	3			CAPACITOR, FIXED

PART 1

NSN	ISC	REF NO	FSCM	RNVC	RNCC	SADC	DA	ITEM NAME
5905-00-714-3979	3	5905-00-503-5984*						
6625-00-714-3990	5	10656-307	94756	2	3		N	PULLEY, FLAT WEB
6625-00-714-3992*	3	CBTV545A	80009	2	5			OSCILLOSCOPE
		PC834900041-5	38597	2	3			OSCILLOSCOPE
		1011931	56232	2	5			OSCILLOSCOPE
		1848288	10001	2	3			OSCILLOSCOPE
		1848288	30003	2	5			OSCILLOSCOPE
		545A	80009	2	3			OSCILLOSCOPE
		9975856	18876	2	5			OSCILLOSCOPE
		6625-00-225-0248						
6625-00-714-3993	6	6587	47496	2	3			METER, ELECTRICA

PART 2

Figure 3-12.–Sample page from the consolidated master-cross-reference list (C-MCRL).

NOTE: Not all items in the catalog are suitable for shipboard use.

Management List-Navy (ML-N)

You have read about the ML-N in the *Military Requirements for Petty Officer Third Class.* The ML-N includes the basic management data for preparing requisitions. Figure 3-11, included here for review, shows the different columns of information and what they contain. The introduction (first fiche-first frames) to the ML-N lists all the codes used and their meanings.

Navy Consolidated Master Cross-Reference List (C-MCRL)

The C-MCRL (fig. 3-12) is a consolidated list of all NSN items of supply in the Federal Catalog System. It includes many NSNs that are not listed in the ML-N. Therefore, you should exercise caution whenever you

Figure 3-13.–Federal supply code for manufacturers (FSCM): (A) H4-1, name to mfg. code; (B) H42, code to name.

requisition items from the C-MCRL. The C-MCRL is distributed to Navy users semiannually, on microfiche, by the Defense Logistics Services Center (DLSC).

Part 1 of the C-MCRL is a cross-reference between a reference number, an FSCM, and an NSN. Part 2 is a cross-reference between an NSN and a reference number.

Federal Supply Code For Manufacturers (FSCM)

The FSCM provides a five-digit identification number for commercial firms, primarily manufacturers, that supply material to the Department of Defense. It is published in three volumes:

1. H4-1–Manufacturer's name to manufacturer's code

2. H4-2–Manufacturer's code to manufacturer's name

3. H4-3–Other countries

Figure 3-13, views A and B, show the format and content of H4-1 and H4-2. When you use the C-MCRL to determine an NIIN, you will frequently find the same

reference number listed more than once, with each listing having a different NIIN. For proper identification, you must then select the NIIN from the line entry showing the FSCM for the company that made the needed part.

The identification lists of the Federal Supply Catalog include the FSCM in the item descriptions. The introduction to each section includes a numerical listing of all FSCMs included in that section.

IDENTIFICATION TO A CURRENT NSN

To obtain required material, you must first find its current NSN. There are three basic methods of entry you may use with the catalogs to obtain this information:

1. Entry with an NSN (which may or may not be current)

2. Entry with a reference number (manufacturer's part number, Navy drawing number, or other reference number)

3. Entry with a noun name and or physical characteristics description

Entry With NSN

In actual practice, if you already have the NSN, you just submit the completed requisition to the supply department.

Entry With Parrt, Drawing, or Piece Number

A reference number is generally any number, other than a current NSN, that can be used to identify an item or to aid in determining the current NSN. Reference numbers, therefore, include old FSNs, electron tube numbers, and electronic equipment circuit symbol numbers. There are, however, two additional important types of reference numbers that you can convert to national stock numbers by using the C-MCRL. They are (1) manufacturer's part numbers and (2) Navy drawing and piece numbers.

Manufacturer's part numbers are numbers assigned to parts by the manufacturer who designs and builds the equipment. The manufacturers assign the numbers for their own use in cataloging and identifying their own material. Some manufacturers use part number systems in which their plan or drawing and piece numbers form all or a portion of their part numbers.

Navy drawing and piece numbers were assigned originally by Navy technical commands to identify items in equipment built and or designed by those commands. Some items may have both manufacturer's part numbers and Navy drawing and piece numbers listed in various reference publications.

When you first try to determine an item's current NSN, you will probably look for a manufacturer's part number or a Navy drawing and piece number. There are several possible places to look for such numbers:

1. On an Allowance Parts List (APL).

2. On the part to be replaced. The part number may be stamped on it.

3. In equipment technical manuals. hey may refer to a manufacturer's part number or Navy drawing and piece numbers.

4. On equipment plans. Plans available on the ship may contain Navy drawing and piece numbers.

5. In EIMB reference data.

Technical manuals, furnished by the manufacturer, contain a detailed description of equipment and instructions for its effective use. Normally, the supply officer does not have technical manuals; they are maintained and used by the ship's technicians in maintaining the complex equipment installed in the ship. They can serve as a basic source of identification information for repair parts.

To obtain a current NSN when you know a reference number, enter the C-MCRL to determine the NIIN. When the NIIN is listed, check to ensure that the FSCM coincides with that of the manufacturer of the part.

When the number is listed more than once, you will need to obtain the manufacturer's code. When you obtain the correct NIIN, update your records to reflect the current stock number.

Entry with Noun Name and or Physical Description

The third method of obtaining a current NSN involves beginning the search with a physical characteristic or noun name description of the item.

There are two different methods of describing an item other than by the NSN. The first method uses a physical description of the item and perhaps a description of its electrical, chemical, and other properties. (This type of description is similar to that provided in mail order catalogs.) The second method, which we covered previously, uses only a reference number; that is, manufacturer's part number. Most of the

items in the Navy Supply System are covered only by reference number descriptions because these items are very difficult to describe.

There are, however, many items that you can easily describe by physical characteristics. Included in this category are many common-use items of nontechnical nature, such as paint, handtools, nuts and bolts; and some technical items, such as fuses, resistors, and electron tubes.

You can find the NIIN for a common-use item with a noun name/physical characteristics description in the ASG or GSA catalog. The ASG is sequenced by Federal Supply Groups and Classes. A noun-name-item number index for the ASG is contained in the Introduction and Master Index.

PLANT PROPERTY

Plant property includes all real property (land or buildings and improvements) owned by the Navy or for which the Navy is accountable. This property may be located at either a Navy shore facility or in the plant of a private contractor. Plant property also includes all personal property of a capital nature (equipment) owned by the Navy. Plant property does not include items of equipment in storage (items that are carried) in the Navy Stock Account (NSA) but that have not been issued for end use. Also it does not include items in the custody of a unit of the operating forces that are moved with the unit. As an Electronics Technician carrying out fiscal and supply duties ashore, you may be called upon to perform tasks associated with plant property accounting.

Identification numbers are used with plant property items to make the following functions easier:

- Selection of specific items for transfer

- Physical inventories of equipment

- Maintenance of property record card files

- Specific identification of equipment items in shipment orders, invoices, and survey reports

- Maintenance of history record cards

Each item of equipment meeting the criteria of plant property is marked with an identification or registration number. This number is also recorded on the plant property record card maintained for that item.

Figure 3-14 is an example of an identification tag that you may find on a piece of electronic equipment.

Figure 3-14.–Sample plant property identification tag.

INTEGRATED LOGISTICS REVIEW (ILR)

A ship's ability to perform its operational missions depends to a large extent on the crew's ability to keep the equipment installed on board working as it is designed to work. To do your job as a technician, you must have the proper technical manuals, test equipment, planned maintenance material, and repair parts readily available for use. One of the Navy's efforts to deal with these requirements and to improve each command's readiness is called the Integrated Logistics Review (ILR). Working closely with this program is the Integrated Logistics Overhaul (ILO) program.

The ILO is scheduled to coincide with upgrades during overhaul periods. Under the guidance of an experienced ILO site staff member, called a ship project manager (SPM), a small number of selected personnel from the command aide in overhaul work to provide the command with complete logistics support. This system includes not only repair parts but also technical manuals and PMS materials for the equipment installed during an availability or overhaul.

Integrated logistics support (ILS) audits are performed on commands that have completed installation of new or modified systems and equipments during an overhaul or availability period. The logistics support planned for these alterations includes audits on the accuracy of the allowance parts list (APL), the coordinated shipboard allowance list (COSAL), and allowance appendix pages (APPs). The correct technical manual that coincides with the installed equipment configuration is reviewed. Test equipment required to perform maintenance functions is determined by reviewing maintenance requirement cards (MRCs). The Planned Maintenance System (PMS) documentation audits include verification of the command's list of effective pages (LOEP), maintenance index pages (MIPs), and maintenance requirement cards (MRCs). The adequacy of personnel training is checked. Spare parts are sight validated, as are the command's selected

records and drawings of the newly installed equipment. When the audits are completed, the command will be aware of deficiencies in the total support for the equipment on board. As a technician, you will be assured of the availability of everything necessary for you to maintain your equipment.

As an Electronics Technician, your job is to have your equipment in good repair and ready for action. You also must know how to research the supply publications so you can identify the repair parts you need. You must feed information into the supply system so parts will be available when you need them. Finally you must know how to obtain those parts through the supply system.

As you advance in paygrade and responsibilities, you will become aware that as a technician you are one of many people who make up the repair team. Now is the time for you to work closely with the Storekeepers and learn the supply system so that it will work for you and not delay any of your repair tasks.